

What is claimed is:

1. A plating-pretreatment solution comprising an organic sulfonic acid, thiourea, fluoroboric acid and hypophosphorous acid.

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2. The plating-pretreatment solution as claimed in claim 1, wherein the organic sulfonic acid is at least one compound selected from the group consisting of phenolsulfonic acid, methanesulfonic acid, ethanesulfonic acid, propanesulfonic acid, 2-propanesulfonic acid, butanesulfonic acid, 2-butanesulfonic acid, pentanesulfonic acid and chloropropanesulfonic acid.

3. The plating-pretreatment solution as claimed in claim 1, which comprises:

the organic sulfonic acid in an amount of 80 to 240 g/l,

thiourea in an amount of 80 to 240 g/l,  
fluoroboric acid in an amount of 30 to 100 g/l, and  
hypophosphorous acid in an amount of 30 to 100 g/l.

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4. The plating-pretreatment solution as claimed in claim 1, which further comprises a surface active agent in an amount of not less than 10 g/l.

5. The plating-pretreatment solution as claimed in claim 1, which is a solution to remove metals remaining on an insulating film of a film carrier tape in which a wiring pattern is formed on a surface of the insulating film.

6. A plating-pretreatment method comprising contacting a film carrier tape in which a wiring pattern is formed on a surface of an insulating film with a plating-pretreatment solution comprising an organic sulfonic acid, thiourea, fluoroboric acid and hypophosphorous acid to remove metals remaining on the insulating film.

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7. The plating-pretreatment method as claimed in claim 6, wherein the organic sulfonic acid is at least one compound selected from the group consisting of phenolsulfonic acid, methanesulfonic acid, ethanesulfonic acid, propanesulfonic acid, 2-propanesulfonic acid, butanesulfonic acid, 2-butanesulfonic acid, pentanesulfonic acid and chloropropanesulfonic acid.

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8. The plating-pretreatment method as claimed in claim 6, wherein the plating-pretreatment solution comprises:

the organic sulfonic acid in an amount of 80 to 240  
5 g/l,  
thiourea in an amount of 80 to 240 g/l,  
fluoroboric acid in an amount of 30 to 100 g/l, and  
hypophosphorous acid in an amount of 30 to 100 g/l.

10 9. The plating-pretreatment method as claimed in claim 6, wherein the plating-pretreatment solution further comprises a surface active agent in an amount of not less than 10 g/l.

15 10. The plating-pretreatment method as claimed in claim 6, wherein the film carrier tape is contacted with the plating-pretreatment solution at a temperature of 30 to 80°C for a period of 2 to 60 seconds.

20 11. The plating-pretreatment method as claimed in claim 6, wherein the film carrier tape to be treated with the plating-pretreatment solution is a film carrier tape formed from a base obtained by sputtering nickel and/or chromium on the insulating film surface without

interposing an adhesive layer, then sputtering copper and further depositing copper.

12. The plating-pretreatment method as claimed in  
5 claim 6, which further comprises, after the treatment  
with the plating-pretreatment solution, a step of  
treating the film carrier tape with an acid treatment  
solution comprising 50 to 150 g/l of  $K_2S_2O_8$ , 5 to 20 ml/l  
of  $H_2SO_4$  and 0 to 3 g/l of Cu at a temperature of 20 to  
10 40°C for a period of 5 to 20 seconds.